

Remarks

Favorable reconsideration of this application, in view of the above amendments and in light of the following remarks and discussion, is respectfully requested.

Applicants respectfully request entry of this response, as the response places the application in clear condition for allowance, or alternatively at least places the claims in better form for appeal. In particular, Applicants have amended the claims to overcome an objection. Claims 1, 2, and 4-24 are currently pending in the application; independent Claims 15 and 22 having been presently amended.

Applicants express thanks for the Examiner's indication that independent Claim 24 is allowed.

Applicants further express thanks for the Examiner's indication that dependent Claims 12-14 and 17-19 include allowable subject matter, such that the claims, although currently objected to, would be allowable if rewritten in independent form.

In the outstanding Office Action, independent Claim 15 was objected to because of an informality. In response, Applicants have amended the claim to recite "an image apparatus," as required by the Examiner. Thus, Applicants respectfully request that the objection to independent Claim 15 be withdrawn.

In the Office Action, Claims 1, 2, 4-11, 15, 16, and 20-23 were rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,371,793 to Doorhy et al. (Doorhy). In response, Applicants respectfully request that the rejection of the claims be withdrawn for the following reasons.

The present invention is directed to connectors and connector systems. Independent Claims 1, 10, 15, 21, and 22 each recite a circuit board held by a plug housing and a cover housing. Independent Claim 1 further recites the plug housing including a back face opposing to a side plate of a cartridge and holding at least one contact. The cover housing includes guide

grooves configured to guide the plug housing in a sliding motion, and edge sections of the circuit board and edge sections of the plug housing which are slideable in the guide grooves. Independent Claim 10 further recites the plug housing including a back face opposing to a side plate of a cartridge. The cover housing includes means for attaching to the side plate of the cartridge. Independent Claim 15 further recites a cartridge configured to be removably attached to an image apparatus. The plug housing includes a back face opposing a side plate of the cartridge and holding at least one contact. Independent Claims 21 and 22 further recite the plug housing including a back face opposing a side of a cartridge and holding at least one contact.

Doorhy is directed to a low-crosstalk modular communication connector. As shown in Figures 4, 5, and 8-10, for example, of Doorhy, the connector 10 includes a housing 12 defining a plug receiving opening 14, a conductor carrying sled 30 and a wire containment fixture 20 for terminating a communication cable. The carrying sled 30 supports a printed circuit board (PCB) 50 and a first and second plurality of conductors.¹ The wire containment 20 having engagement walls 24 with guide slots 25 is assembled onto sled 30 via guide rails 40 and slid forward until proper termination is achieved and locked in position by a cantilevered snap latch.²

However, Applicants respectfully assert that Doorhy does not teach the claimed features of a circuit board held by a plug housing and a cover housing, as recited in independent Claims 1, 10, 15, 21, and 22. The Office Action asserts that the PCB 50, the sled 30, and the engagement walls 24 of the wire containment 20 are analogous to the claimed features of the circuit board, the plug housing, and the cover housing. Even if Applicants agreed with these assertions, which Applicants do not, Doorhy still does not teach the claimed features recited in

¹ Column 2, lines 34-45.

² Column 4, lines 52-56.

the independent claims. Rather, Doorhy shows in Figures 8-10 that the wire containment 20 is disposed on a side of the sled 30 that is opposite to the PCB 50. Thus, because Doorhy does not show that the PCB 50 is held by the wire containment 20, Applicants respectfully assert that Doorhy does not teach the claimed features of a circuit board held by a cover housing, for example.

Specifically, independent Claims 1, 15, 21, and 22 each recite “a circuit board held by the plug housing, [and] the cover housing.” Independent Claim 10 recites “a circuit board . . . held by both housings.” Thus, Applicants respectfully request that the rejection of independent Claims 1, 10, 15, 21, and 22 under 35 U.S.C. § 102(e) be withdrawn and the independent claims allowed.

Dependent Claims 2, 4-9, 11-14, 16-20, and 23 depend from the independent claims, and are therefore also allowable for the same reasons as the independent claims, as well as for their own features. Thus, Applicants respectfully request that the objections to and rejections under 35 U.S.C. § 102(e) of dependent Claims 2, 4-9, 11-14, 16-20, and 23 be withdrawn, and the dependent claims allowed.

Notwithstanding the above discussion, which provides sufficient and adequate grounds requiring the allowance of Claims 1, 2, and 4-23, Applicants respectfully assert that the claims recite further features that also are not taught by Doorhy.

By way of specific non-limiting examples with respect to the independent claims, Applicants respectfully assert that independent Claim 1 recites a connector for a side plate of a cartridge which removably attaches to an apparatus, a plug housing including a back face opposite to the side plate of the cartridge, and a cover housing including guide grooves, edge sections of a circuit board and edge sections of the plug housing both slideable in the guide grooves. In contrast, Applicants respectfully assert that Doorhy does not state that the connector 10 is for a side plate of a cartridge, does not state that the sled 30 includes a back face

opposite to such a side plate, and does not state that edge sections of the PCB 50 are slideable in guide grooves of the wire containment 20.

Independent Claim 10 recites a connector for a cartridge, and a cover housing including means for attaching to the side plate of the cartridge. In contrast, Doorhy does not state that the connector 10 is for a cartridge, and does not state that the wire containment 20 includes means for attaching to a side plate of such a cartridge.

Independent Claim 15 recites a connector system for an image apparatus, a cartridge configured to removably attach to the image apparatus, and a plug housing including a back face opposing to a side plate of the cartridge. In contrast, Doorhy does not state that the connector 10 is for an image apparatus, does not state a cartridge to removably attach to such an image apparatus, and does not state that the sled 30 includes a back face opposing to a side plate of such a cartridge.

Independent Claims 21 and 22 each recite a connector for a side plate of a cartridge, and a plug housing including a back face opposing to the side plate of the cartridge. Independent Claim 22 further recites a forward end of a holding member which holds a circuit board and an exposed end portion of a lead penetrating the circuit board are located on a back face of the plug housing. In contrast, Doorhy does not state that the connector 10 is for a side plate of a cartridge, and does not state that the sled 30 includes a back face opposing to such a side plate. Further, Doorhy does not state a holding member and an exposed end portion of a lead penetrating the PCB 50 are located on a back face of sled 30.

By way of specific non-limiting examples with respect to the dependent claims, Applicants respectfully assert that dependent Claim 4 recites a circuit board covering an open portion of a plug housing thereby forming a closed cross-section with the plug housing. In contrast, Applicants respectfully assert that Doorhy does not state that the PCB 50 covers an open portion of the sled 30 to form a closed cross-section with the sled 30.

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Dependent Claims 7 and 23 each recite a cover housing including a protruding section configured to attach to a cartridge of electronic parts. In contrast, Doorhy does not state does not state that the wire containment 20 is for a cartridge of electronic parts.

Dependent Claims 6 and 20 each recite a forward end of a holding member which holds a circuit board and an exposed end portion of a lead penetrating the circuit board are located on a back face of the plug housing. In contrast, Doorhy does not state a holding member and an exposed end portion of a lead penetrating the PCB 50 are located on a back face of sled 30.

Thus, Applicants respectfully assert that the above-discussion provides alternate grounds for the withdrawal of the rejections of and objections to Claims 1, 2, and 4-23, and therefore Applicants respectfully request the allowance of Claims 1, 2, and 4-23.

Consequently, in view of the present amendment, no further issues are believed to be outstanding in the present application, and the present application is believed to be in condition for formal Allowance. A Notice of Allowance for Claims 1, 2, and 4-24 is earnestly solicited.

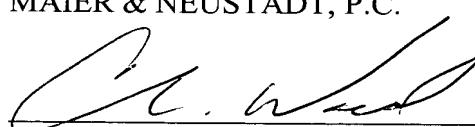
Should the Examiner deem that any further action is necessary to place this application in even better form for allowance, the Examiner is encouraged to contact the undersigned representative at the below listed telephone number.

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Respectfully submitted,

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